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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,495	09/24/2001	Hiroyuki Amishiro	50090-338	5812

7590 09/08/2004

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EXAMINER	
HOGANS, DAVID L	

ART UNIT	PAPER NUMBER
2813	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/960,495	AMISHIRO ET AL.	
	Examiner	Art Unit	
	David L. Hogans	2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *14-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5 and 11* is/are rejected.

7)☒ Claim(s) *4,6-10,12,13 and 21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the After Final Amendment filed on August 11, 2004.

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Status of Claims

Claims 1-13 and 21 are pending. Claims 14-20 are withdrawn.

Drawings

The objection to Figure 8 is maintained. "The drawing in a nonprovisional application must show every feature of the invention specified in the claims." (citing 37 CFR 1.83(a))(See also 37 CFR 1.84(p)(5) and MPEP § 608.02(d))

Claim Objections

2. Claim 2 is objected to because of the following informalities: Claim 2 line 2 should redact the second use of the following words "element isolating film". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by 4,384,299 to Raffell et al.

In reference to Claim 1, Raffel et al. teaches:

- a semiconductor device having a plurality of resistor elements (100) formed on an element isolating insulating film (114) in predetermined regions on a surface of a semiconductor substrate (110), said semiconductor device comprising active regions (106) proximate to each of said resistor elements (100), wherein said active regions (106) are formed in said semiconductor substrate (110) and partition said element isolating insulating film (114) between adjacent resistor elements (100) (See Figure 9)

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by 6,365,481 to Bonser et al.

In reference to Claim 1, Bonser et al. teaches:

- a semiconductor device (10) having a plurality of resistor elements (30 and 32) formed on an element isolating insulating film (16) in predetermined regions on a surface of a semiconductor substrate (12), said semiconductor device comprising active regions (14) proximate to each of said resistor elements (30 and 32), wherein said active regions (14) are formed in said semiconductor substrate (12) and partition said element isolating insulating film (16) between adjacent resistor elements (30 and 32) (See Figure 1 and column 3 lines 10-53)

In reference to Claim 2, Bonser et al. teaches:

- wherein said element isolating insulating film is formed by shallow trench isolation (See Figure 1 and column 3 lines 10-53)

Furthermore, the Examiner notes that the patentability of a product does not depend on its method of production. Therefore, the limitation that the insulating film is formed by shallow trench isolation carries no patentable weight.

"Even though product -by[-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

A *"product by process"* claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972): *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); In re Fessmann, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a *"product by, all of"* claim, and not the patentability of the process, and that an old or obvious product, whether claimed in *"product by process"* claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

In reference to Claim 3, Bonser et al. teaches:

- wherein said plurality of resistor elements are arranged on said element isolating insulating film and wherein said element isolating insulating film under said resistor elements is set to a predetermined width by said active regions (See Figure 1 and column 3 lines 10-53)

In reference to Claim 11, Bonser et al. teaches:

- wherein said active regions extend close to lengthwise ends of said resistor elements which are surrounded by said active regions (See Figure 1 and column 3 lines 10-53)

7. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by 6,285,066 to Meyer.

In reference to Claim 1, Meyer teaches:

- a semiconductor device (10) having a plurality of resistor elements (138) formed on an element isolating insulating film (136) in predetermined regions on a surface of a semiconductor substrate (10), said semiconductor device comprising active regions (76) proximate to each of said resistor elements (138), wherein said active regions (76) are formed in said semiconductor substrate (10) and partition said element isolating insulating film (136) between adjacent resistor elements (138) (See Figures 8 and 13-14 and columns 3-8 lines 05-40)

In reference to Claim 3, Meyer teaches:

- wherein said plurality of resistor elements are arranged on said element isolating insulating film and wherein said element isolating insulating film under said resistor elements is set to a predetermined width by said active regions (See Figures 8 and 13-14 and columns 3-8 lines 05-40)

8. Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by US 2002/0004270 to Moriwaki et al.

In reference to Claim 5, Moriwaki et al. teaches:

- a semiconductor device having a plurality of resistor elements (103C or 303C) formed on an insulating film (101, 201 or 301) in predetermined regions on a surface of a semiconductor substrate, said semiconductor device comprising: active regions (105, 106, 305 and 306) proximate to each of said resistor elements, wherein the regions including said active regions are furnished with dummy gate electrodes (103B and 303B) constituting the same layer as that of said resistor elements (See Figures 1-9 and paragraphs 0063-0106)

Allowable Subject Matter

1. Claims 4, 6-10, 12, 13 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

2. The following is a statement of reasons for the indication of allowable subject matter.

With regard to Claim 4, the prior art of record, in combination with the other claimed features, fails to teach wherein said insulating film under said resistor elements is set to a predetermined width by said active regions, wherein said predetermined width is defined by an amount of shift in resistance value of said resistor elements, said amount of shift being defined by said predetermined width.

With regard to Claims 6-8, the prior art of record, in combination with the other claimed features, fails to teach wherein said dummy gate electrodes entirely cover the active regions, or wherein said active regions are covered with a plurality of dummy

gate electrodes, or wherein a distance between each of said resistor elements and each of said dummy gate electrodes is held constant.

With regards to Claims 9, 10 and 21 the prior art of record, in combination with the other claimed features, fails to explicitly teach wherein a plurality of said resistor elements are furnished between any adjacent two of said active regions.

With regards to Claim 12, the prior art of record, in combination with the other claimed features, fails to explicitly teach wherein the resistor elements are surrounded by the dummy gate electrodes.

With regards to Claim 13, the prior art of record, in combination with the other claimed features, fails to explicitly teach wherein said resistor elements are formed by a layer constituting gate electrodes of MOS transistors furnished outside said predetermined regions.

Response to Arguments

3. Applicant's arguments, see pages 3-6 lines 01-19, filed August 11, 2004, with respect to the rejection(s)of claim(s) 1-3, 5, 9, 11 and 13 under 35 USC 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the cited prior art above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Hogans whose telephone number is (571) 272-1691. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DH

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